



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/828,411

04/06/2001

Tooru Ogino

NEC 01USFP630

5173

7590

04/06/2004

Norman P. Soloway
HAYES, SOLOWAY, HENNESSEY,
GROSSMAN & HAGE, P.C.
175 Canal Street
Manchester, NH 03101

EXAMINER

NGUYEN, LEE

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/828,411	Applicant(s) OGINO, TOORU	
	Examiner LEE NGUYEN	Art Unit 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on ____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) ☐ Claim(s) ____ is/are allowed.

6) ☒ Claim(s) 1-12 and 15-20 is/are rejected.

7) ☒ Claim(s) 13-14 is/are objected to.

8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a) ☒ All b) ☐ Some * c) ☐ None of:

 1. ☒ Certified copies of the priority documents have been received.

 2. ☐ Certified copies of the priority documents have been received in Application No. ____.

 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3-5</u> .	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____.
--	---

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The IDS filed paper Nos. 3-5 have been considered and recorded in the file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monma et al. (US 6,211,830) in view of Matsumoto (US 5,451,965).

Regarding claim 1, Monma teaches a portable telephone apparatus (figs. 1, 4), comprising: a body 101; and an antenna section 203, 210 (col. 11, 49-55), and wherein said antenna section includes an antenna element

210, and a plurality of reflectors 103, 203 provided near said antenna element (col. 6, 35-38, col. 7, 43-48). Monma fails to teach that said antenna section is provided at an end side where a microphone is provided of said body. In an analogous art, Matsumoto teaches that an antenna section 2 is provided at an end side where a microphone 12 is provided of a body (col. 4, lines 24-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Matsumoto to the portable telephone apparatus of Monma in order to minimize possible disturbances of electromagnetic waves caused by using the microphone.

Regarding claim 2, Monma as modified also teaches that said antenna section is provided in said body (Monma, fig. 4, col. 11, 55).

Regarding claim 3, Monma as modified also teaches that the number of said plurality of reflectors is two (Monma, col. 7, 46).

Regarding claim 4, Monma as modified also teaches that each of said plurality of reflectors is a conductive plate (Monma, col. 4, 42).

Regarding claim 5, Monma as modified also teaches that an end portion of each of said plurality of reflectors is in parallel with a direction of a length of said antenna element (fig. 1, numerals 102, 103).

Regarding claim 6, Monma as modified fails to teach that planes of said plurality of reflectors are oriented to directions different from each other. As to that limitation it was that there would be no invention in orienting parts in different directions since the operation of the apparatus would not thereby modified.

Regarding claims 7-8, Monma as modified also teaches that one of said plurality of reflectors 103 is connected to a ground 104, selectively to change a directivity of said antenna element and that said directivity of said antenna element is changed without using a mechanic structure to reflect radio waves emitted from said antenna element of said plurality of reflectors (fig. 1, col. 6, 32-52, Monma).

Regarding claim 9, Monma as modified also teaches comprising: a judging unit 260 (fig. 4) judging a state of a signal received at said antenna section to produce a control signal, and wherein one of said plurality of reflectors is connected to a ground, selectively to change a directivity of said antenna element, based on said control signal (col. 11, 30-54, Monma).

Regarding claim 10, Monma as modified also teaches that after said one of said plurality of reflectors is connected to said ground, selectively to

change said directivity of said antenna element, based on said control signal, said another of said plurality of reflectors is connected to said ground, selectively to change said directivity of said antenna element, based on said control signal (col. 7, 46-48, col. 11, 30-54, Monma).

Regarding claim 11, Monma as modified also teaches that said judging unit detects an RSSI 242 (fig. 4, Monma) of said received signal to produce said control signal. Monma fails to teach an Eb/lo, and a BER of said received signal to produce said control signal. However, using the RSSI (signal quality) or Eb/lo and BER is obvious to a skilled artisan because the Eb/lo and BER is also signal quality. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Eb/lo and BER to the apparatus of Monma in order to enhance the quality detection of received signals.

Regarding claim 12, Monma as modified also teaches that said antenna section is covered by a mold not to be viewed (numeral 603, fig. 17 of Monma).

Regarding claim 17, Monma as modified inherently teaches that said plurality of reflectors is provided under a board on which a radio unit is mounted (fig. 17, numeral 603 of Monma).

Regarding claims 18-19, Monma as modified fails to teach that each of said plurality of reflectors has a triangular shape and that each of said plurality of reflectors has a curved surface corresponding to a curved surface of an end portion of said body. The particular configuration of reflectors is just one of numerous configurations that a person of ordinary skill in the art would find obvious for the purpose of providing the shape of the reflectors.

Regarding claim 20, Monma as modified also teaches that one of said plurality of reflectors is connected to said ground, selectively to change said directivity of said antenna element at established periods (col. 11, 49-54 of Monma).

5. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monma in view of Matsumoto as applied to claim 1 above, and further in view of the prior art admitted by Applicant in the specification page one, referred to as the admitted prior art herein after.

Regarding claims 15-16, Monma as modified fails to teach that said portable telephone apparatus is a type of W-CDMA system and that said

portable telephone apparatus performs a continuous transmission and a continuous reception. However, a W-CDMA portable telephone that performs continuous transmission and reception is conventionally well known, as taught in the admitted prior art page 1 of the specification. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include W-CDMA telephone to the apparatus of Monma in order to enhance system's channel capacities.

Allowable Subject Matter

6. Claims 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 13, the prior art of record fails to teach a switching unit to switch between one and another of said plurality of reflectors wherein each of said plurality of reflectors is connected to said ground through a capacitor.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE NGUYEN whose telephone

number is (703)-308-5249. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VIVIAN CHIN can be reached on (703) 308-6739.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 4/2/04
LEE NGUYEN
Primary Examiner
Art Unit 2682